

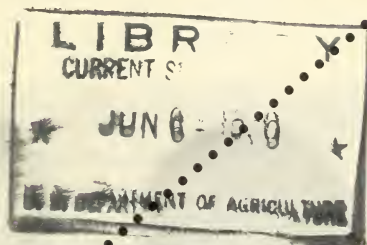
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ANAPLASMOSIS IN CATTLE



LEAFLET NO. 437

UNITED STATES DEPARTMENT OF AGRICULTURE



ANAPLASMOSIS IN CATTLE

Anaplasmosis is a disease caused by microscopic parasites¹ that live in red blood cells.

Each year, anaplasmosis costs American cattle raisers millions of dollars. In some outbreaks it kills half the cattle that catch it; other times, less than 1 percent will die.

All cattle can catch anaplasmosis; it is most severe in mature cattle and usually is mild in calves.

Deer can have a mild form of the disease. Anaplasmosis occurs in sheep but is caused by a different parasite that does not harm cattle. Human beings cannot catch anaplasmosis.

Anaplasmosis may be found almost anywhere that cattle are raised. It occurs most frequently in warmer areas. It is spreading.

Cattle are more likely to catch anaplasmosis in the warm months of summer and early fall than at any other time. They can catch it at any time, however.

WHAT IT DOES

Anaplasma parasites attack red blood cells; this causes anemia.

The anemia makes lips, nostrils, mouth linings, and other visible

mucous membranes look pale. The animal breathes faster than usual, and its heart beats faster. It loses condition. The animal grows weaker, stops chewing its cud, and is constipated. Symptoms vary in intensity; recovery is slow. When the disease lasts a long time, the animal's tissues become yellowish.

The active disease may last 2 to 4 weeks after the first symptoms appear. It may disappear in 1 or 2 days. In rare cases, older cattle die within 24 hours. Sometimes the disease lasts a long time.

Animals that recover from the active disease are carriers and can spread the disease.

Anaplasmosis can be confused with other diseases, such as tick fever, anthrax, shipping fever, and leptospirosis. It may appear in animals already infected with another disease.

HOW IT SPREADS

Anaplasmosis is spread when de-horning and tattooing instruments, bleeding needles, or vaccination needles are used on a carrier animal and then, without sterilizing, on a healthy animal. Anaplasmosis is spread through many herds by

¹ *Anaplasma marginale*.

using the same vaccination needle on several animals.

Mosquitoes, horse flies, stable flies, and horn flies spread anaplasmosis in a herd when they bite infected animals and then bite healthy animals.

Ticks also spread anaplasmosis. In ticks, the parasites survive for days or months, and may even multiply.

Anaplasmosis does not spread by contact or through the feces or urine of carriers or sick animals. Some calves born of infected mothers are reported to have been infected before birth.

TREATING SICK ANIMALS

Call a veterinarian as soon as you notice symptoms of anaplasmosis. He may give blood transfusions. These help the animal recover.

If they are used early, certain antibiotics may shorten the course of the disease.

Keep sick animals away from well ones. Keep them in the shade; give them plenty of fresh water and a succulent feed.

Apply insecticides to both sick and well animals to protect them from biting insects and ticks.

PREVENTING OUTBREAKS

A blood test to find animals infected with anaplasmosis has been developed. It is called a complement-fixation test. If you live in an area where anaplasmosis is common, ask a veterinarian to collect blood for the complement-fixation test to find the carriers in your herd. Keep animals that react to the test away from negative animals until you send them to slaughter or until you maintain them in a separate herd.

Apply insecticides to all animals during insect season.

Sterilize dehorning, castrating, and other surgical instruments.



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Young steer with chronic anaplasmosis. Note the loss of condition and unthriftiness.

Wash used instruments and needles in cold water to remove blood. Then boil them for 20 minutes.

TICK AND INSECT CONTROL ²

Ticks, mosquitoes, stable flies, horn flies, and horse flies can be controlled by spraying or dipping. The recommendations for dairy cattle differ from those for beef cattle because some insecticides may be secreted in milk.

Dairy Cattle

Control ticks and insects on dairy cattle with sprays containing pyrethrum or rotenone. Spray thoroughly every day or two.

Prepare pyrethrum sprays by mixing 1 part of emulsifiable liquid containing 1 percent of pyrethrins with 9 parts of water. For rotenone sprays, mix 12 ounces of powder containing 5 percent of rotenone in a gallon of water. A gallon of either mixture is enough to spray 1 or 2 animals.

Beef Cattle

Control ticks on beef cattle by dipping or spraying with a water emulsion containing 0.5 percent of toxaphene or malathion or 0.025 percent of lindane. Repeat treatment as needed.

To make the spray or dip, mix 1 gallon of emulsifiable liquid containing 50 percent of toxaphene or malathion in 100 gallons of water, or mix 1 pint of emulsifiable liquid

containing 20 percent of lindane in 100 gallons of water.

For small quantities, mix 7½ teaspoons of the toxaphene or malathion emulsifiable liquid in 1 gallon of water, or mix 1 teaspoon of lindane emulsifiable liquid in 1 gallon of water. A gallon of spray will treat 1 or 2 animals.

If you buy a lower or higher concentration of insecticide, use proportionately more or less of it.

Pyrethrum sprays will repel biting insects. Every 3 or 4 days, spray thoroughly, wetting the animal's hair.

Precautions

Some toxaphene preparations are harmful when used as cattle dips. Read the label before you buy toxaphene to make sure it is suitable for dipping cattle.

Carefully measure water and insecticide and mix according to instructions on the label.

Do not apply more toxaphene, malathion, or lindane than recommended because too much of it may harm farm animals. Calves are particularly susceptible to poisoning with toxaphene.

Do not apply toxaphene or lindane less than 30 days before slaughter.

Fence off dipping vats so livestock cannot drink the insecticide.

Do not pollute streams or ponds with insecticides. They can kill fish.

Prepared by the Animal Disease and Parasite Research Division, Agricultural Research Service.

² Information in this section was supplied by the Entomology Research Division, Agricultural Research Service.

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